A NEW GENUS AND THREE NEW SPECIES OF THE TRIBE SPATHOPHORINI (HETEROPTERA: COREIDAE)[1]

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ABSTRACT: *Egerniella*, new genus, and two new species, *E. delectabilis* from Ecuador and Peru, and *E. immaculata* from Peru, and *Himellastella formosa* a new species from Brazil are described, illustrated, and assigned to the tribe Spathophorini (Coreidae). The new genus resembles and is most closely related to the Neotropical genera *Himellastella* and *Paralycambes*.

The tribe Spathophorini has been the subject of two recent papers (Brailovsky 1998, Brailovsky & Barrera 1998). Recently I had the opportunity to study additional material, including a striking new genus and an undescribed species of *Himellastella* Brailovsky and Barrera.

The new genus has been placed in couplet 6 of the Brailovsky and Barrera (1998) key:

6 Mesosternum elevated; humeral angles sharp but hardly produced laterally; posterolateral border of pronotum almost smooth or only with upper half finely nodulose ..... *Lycambes* Stål

6' Mesosternum flat; humeral angles produced laterally into a medium or large-sized and acute spine; posterolateral border of pronotum abruptly crenate or nodulose 7

7 Humeral angles markedly produced laterally into a sharp and large spine (Figs. 8-9); middle femur unarmed; hind femur length reaching anterior margin of abdominal sternite VII; plica not visible ..... *Egerniella*, new genus

7' Humeral angles produced laterally into medium-sized angulate triangle (Fig. 6); middle femur ventrally armed; hind femur short, not extending beyond anterior margin of abdominal sternite VI; plica present ..... *Paralycambes* Kormilev

Acronyms used: Carnegie Museum of Natural History, Pittsburgh, Pa. (CMN), Joe E. Eger, Private Collection (JEE), Texas A & M University, College Station (TAMU), and Instituto de Biología, Universidad Nacional Autónoma de México (UNAM).

All measurements are given in millimeters.

Egerniella Brailovsky, NEW GENUS

Description. Head. Wider than long, barely pentagonal, non-declivent, dorsally flat; tylus unarmed, apically globose, raised, extending anteriorly to and laterally higher than juga and antenniferous tubercles; juga unarmed, shorter than tylus; space between antenniferous tubercles filled by tylus, and space between them smaller than width of one tubercle; antenniferous tubercles unarmed, border entire, continuous, almost semicircular, not prominent; antennal segment I robust, cylindrical, thickest, slightly curved outward, barely flattened, longer than head; segments II and III cylindrical, flattened, sulcate;

[1] Received June 25, 1999. Accepted September 16, 1999.

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segment IV fusiform; antennal segment IV the longest, III shortest, and II shorter than I; ocelli close to eyes; distance between ocelli 2.9 to 3.7 times the diameter of one ocellus; preocellar pit deep; eyes globose, protuberant, upper margin located almost at same level of vertex and frontal area; postocular tubercle and mandibular plate absent; buccula rectangular, raised, short, entire, not projecting beyond antenniferous tubercles, meeting posteriorly and closed; rostrum reaching middle third of metasternum; rostral segment III shortest, I shorter than II and IV, and II longer or subequal than IV; ventral surface behind buccula without tubercle.

Thorax. Pronotum. Wider than long, trapeziform, slightly declivent, with posterior border subequal to base of scutellum in width; collar wide; anterolateral angles obtuse; humeral angles markedly produced laterally into a sharp and large spine; anterior margin smooth, curved; anterolateral margins obliquely straight, nodulose; posterolateral margins abruptly spinate and tuberculate; posterior border almost straight and posterior margin with irregular transversal ridge; triangular process broad, apically subacute; calli entire, not elevated. Prosternum sunken, posterior margin in front of area between fore legs produced into narrow acute projection; mesosternum flat or barely convex, anterior margin in front of area between fore legs produced into a broad and blunt keel, posterior margin between middle legs bilobed, each lobe well separated from mesial line and in the same relative position as the arms of anterior margin of metasternum; metasternum broad, squarish, anterior margin with two small arms, separated along midline; each arm almost touching the two lobes of the posterior margin of mesosternum; posterior margin of metasternum straight, lateral angles projected into short subacute plate lying against metacoxa, and at middle third entirely flat (Fig. 5); metathorax laterally not expanded, in dorsal view with metapleura and acetabulae not visible; anterior lobe of metathoracic peritreme weakly globose and almost fused with the tiny posterior lobe; evaporative area poorly developed.

Legs. Hind coxae separated, distance between them 2.2 to 2.4 times the diameter of one coxa, and apically without tubercle; fore femur slender, ventrally with one subdistal spine; middle femur slender, unarmed; hind femur incrassate reaching anterior border of abdominal sternite VII; dorsal surface smooth, ventrally with one row of strong spines and tubercles running from middle third to apex; fore and middle tibiae unarmed, sulcate, widened distally; hind tibia almost straight, flattened, shorter than length of hind femur, with outer margin sulcate and not expanded, inner margin not expanded, apically armed with a slender and relatively long spine.

Scutellum. Longer than wide, triangular, flat, shorter than clavus; disc without triradiate ridge; apex acute not elevated; lateral margins emarginate.

Hemelytra. Macropterous, reaching apex of abdomen; clavus and claval suture not covered by the scutellum; costal margin emarginate; apical margin obliquely straight, with apical angle narrowly long, extending beyond middle third of hemelytral membrane.

Abdomen. Gradually narrowing; connexival segments scarcely elevated; posterior angle of segments IV to VII projected into short and acute spine; segments II and III entire, without spine; abdominal sterna without medial furrow; abdominal spiracles slightly elliptical to circular, close to anterior border; abdominal sternite II visible, slender, short, rectangular, without tubercle; abdominal sternite III not expanded laterally.

Female genitalia. Abdominal sternite VII with fissura, this with inner margin overlapping; plica not visible; gonocoxae I subtriangular, short, exposed, closed in caudal view, straight in lateral view, with upper border rounded to subacute; paratergite VIII triangular, spiracle visible; paratergite IX squarish, longer than paratergite VIII.

Male. Unknown.

Integument. Body surface shiny, with clavus, corium, prosternum, mesosternum, and metasternum dull; surface including antennal segments and legs sparsely clothed with short decumbent to suberect setae; head, collar, calli, prosternum, mesosternum, metasternum, middle third of propleura, mesopleura, metapleura, connexival segments, and abdominal sterna not

punctate; posterior lobe of pronotum, acetabulae, anterior and posterior margin of propleura, and posterior margin of metapleura strongly punctate; clavus and corium densely and finely punctate; scutellum transversely striate.

Etymology. Named for Joe E. Eger, distinguished American heteropterist, specialist of Scutelleridae, and collector of the type series.

Discussion. *Egerniella* Brailovsky new genus, *Himellastella* Brailovsky & Barrera, and *Paralycambes* Kormilev, share the following characters: head ventrally smooth, without tubercle behind buccula, hind femur gradually incrassate, triangular process on pronotum well developed, mesosternum flat, metathorax not expanded laterally, scutellum longer than wide, and humeral angles laterally produced. In *Egerniella* and *Paralycambes*, the middle third of the metasternum is flat, in *Himellastella* it is conspicuously produced into two large conical lobes freely directed downward (Figs. 1-3). *Egerniella* differs from *Paralycambes* in the following characters: humeral angles markedly produced laterally into a sharp and large spine, middle femur unarmed, hind femur length reaching anterior margin of abdominal sternite VII, and plica not visible. In *Paralycambes* the humeral angles are produced laterally into an acute medium-sized angulate triangle; middle third of femur ventrally armed, hind femur short not extending beyond anterior margin of abdominal sternite VI, and plica present (Brailovsky 1998, and Brailovsky & Barrera 1998).

Type species.- *Egerniella delectabilis* Brailovsky, new species.

Egerniella delectabilis Brailovsky, NEW SPECIES

Figures 5, 8

Description. Female. Dorsal coloration. Head shiny yellow, with postocular surface and two narrow longitudinal stripes running laterally to middle line from ocellar tubercle to near antenniferous tubercles shiny brown; ocelli reddish; antennal segments I to IV shiny chestnut orange; pronotum shiny black with collar, calli, three broad longitudinal stripes and posterior border shiny yellow; humeral angles with the spine shiny chestnut orange to shiny black; calli sprinkled with brown reflections; scutellum shiny red with lateral margins ochre and shiny yellow longitudinal median stripe; apex creamy yellow; clavus black with vein and comissure dull yellow; exocorium dull red, with costal margin dull yellow, endocorium dull black with veins and apical margin dull yellow; hemelytral membrane dark ambarine with veins and basal angle black; connexival segments II to V shiny chestnut orange, and VI and VII shiny chestnut orange with inner margin and posterior third of segment VII black; dorsal abdominal segments black. **Ventral coloration.** Head shiny yellow; rostral segments I to III dirty yellow and IV black with basal third dirty yellow; prosternum, mesosternum, and anterior third of metasternum black; posterior third of metasternum shiny chestnut orange; propleura shiny yellow with broad chestnut red longitudinal stripe close to outer third; mesopleura and metapleura shiny red to shiny chestnut orange with posterior margin and large and broad spot shiny yellow; anterior lobe of metathoracic peritreme pale orange yellow; fore acetabula shiny yellow; middle and hind acetabulae shiny yellow with posterior third shiny chestnut red; fore and middle legs dirty yellow with sulcate section of tibiae irregularly black; hind leg with coxa, trochanter and femur shiny chestnut orange and femoral spines black; tibia with basal half shiny brown, and

distal half and tarsi dirty yellow; abdominal sterna shiny brown with following areas shiny yellow: sternite II, pleural sterna II to VII, middle third of sterna III to V, middle third of anterior margin of sternite VI, and inner face of paratergite VIII and IX.

Variation. 1- Rostral segment IV yellow with apex black. 2- Middle third of head behind buccula black. 3- Middle third of abdominal sterna II and VII shiny black. 4- Paratergite VIII entirely yellow.

Measurements. Head length 1.36, width across eyes 2.04, interocular space 1.00, interocellar space 0.42, preocular distance 0.82; length of antennal segments: I, 3.24, II, 2.44, III, 2.08, IV, 3.60; length of rostral segments: I, 0.65, II, 0.75, III, 0.55, IV, 0.72. Pronotum: Total length 3.36, width across frontal angles 1.68, width across humeral angles 5.20. Scutellar length 1.80, width 1.44. Total body length 12.95.

Male. Unknown.

Type material. Holotype: , Ecuador: Provincia Napo, vic Puerto Misahuali, 1-2'-4.2"S-77 -39'-49.2"W, 550-630m, 6-19-IX-1998, J. E. Eger (TAMU). Paratypes. 1 , same data as for holotype (UNAM). 1 , Peru: Huanuco Department, Tingo Maria National Park, Tingo Maria, 660m, 11-17-IV-1987, J. E. Eger (TAMU).

Etymology. Named for Latin "*delectabilis*", meaning delightful or agreeable.

Egerniella immaculata Brailovsky, NEW SPECIES

Figure 9

Description. Female. Dorsal coloration. Head shiny chestnut yellow with ocellar tubercle brown; ocelli red; postocular surface black; antennal segment I chestnut yellow (antennal segments II to IV mutilated); pronotum shiny chestnut yellow with posterior transversal ridge reddish brown; scutellum bright red with lateral margins ochre and bright yellow longitudinal median stripe; apex creamy yellow; clavus black with vein and claval comissure dull yellow; exocorium dull red with costal margin dull yellow, exocorium dull black with veins and apical margin dull yellow; hemelytral membrane dark ambarine with veins and basal angle black; connexival segments II to VII shiny chestnut orange with inner margin of VII black. *Ventral coloration*. Head, rostral segments (apex of IV black), thorax, and abdomen shiny chestnut yellow; prosternum, mesosternum, and anterior half of thoracic metasternum black; posterior half of metasternum shiny chestnut orange; anterior lobe of metathoracic peritreme dark orange; fore and middle leg yellow; hind leg with coxa and trochanter shiny chestnut brown, femur with dorsal surface shiny chestnut yellow, and ventrally, including the spines and tubercles, shiny brown to black, tibia yellow with basal third black, and tarsi yellow; abdominal sternite VII yellow with shiny black longitudinal stripe running throughout fissura; genital plates shiny yellow with outer margin of paratergite VIII and IX, and caudal margin of gonocoxae I bright black.

Measurements. Head length 1.34, width across eyes 2.00, interocular space 0.98, interocellar space 0.44, preocular distance 0.86; length of antennal segments: I, 3.08, II to IV mutilated; length of rostral segments: I, 0.65, II, 0.72, III, 0.55, IV, 0.67. Pronotum: Total length 3.48, width across frontal angles 1.80, width across humeral angles 6.12. Scutellar length 1.88, width 1.44. Total body length 13.78.

Male. Unknown.

Type material. Holotype: ♀, Peru: Huanuco Department, Tambillo Grande Canyon, 13 km S Tingo Maria, 930m, 3-V-1988, J. Ch. de Vela (TAMU).

Etymology. Named from the Latin "*im*", meaning not, and "*maculate*", meaning spot, to reflect the unspotted abdominal sterna III to VI.

Key to the Species of *Egerniella*

1 Pronotum shiny black with collar, calli, posterior border, and three broad longitudinal stripes shiny yellow; propleura, mesopleura and thoracic metapleura bright red to shiny chestnut orange with yellow marks; abdominal sterna III to VI not entirely yellow ..... *delectabilis* **sp.n.**

1' Pronotum shiny chestnut yellow with posterior transverse ridge reddish brown; propleura, mesopleura and thoracic metapleura yellow; abdominal sterna III to VI entirely yellow ..... *immaculata* **sp.n.**

Himellastella formosa Brailovsky, NEW SPECIES

Figures 1, 4, 7, 10

Description. Male. Dorsal coloration. Head shiny chestnut orange; antennal segment I shiny chestnut orange, and segments II to IV shiny red; pronotum shiny chestnut orange, with humeral angles shiny reddish brown, posterior margin and triangular process yellow, and two creamy yellow enamel-like spots located on middle third, one behind calli, the other on posterior margin; scutellum shiny chestnut orange, with apex creamy yellow; clavus dull yellow with punctures orange; corium dull yellow with reddish brown stripes between veins; hemelytral membrane dark ambarine, with veins and basal angle darker; connexival segments III to V yellow and VI-VII yellow with inner margin orange red; dorsal abdominal segments orange red with yellow longitudinal stripe running throughout middle third of segments V to VII. **Ventral coloration.** Including rostral segments (apex of IV black), fore and middle legs, and genital capsule shiny chestnut orange; metasternum shiny orange red; propleura with small protuberance, and mesopleura and metapleura with large and broad creamy yellow hardened protuberance; hind leg shiny chestnut orange with posterior margin of femur and basal third of tibia shiny chestnut red; anterior lobe of metathoracic peritreme pale orange; pleural margin of abdominal sterna II to VII yellow to creamy yellow.

Structure. Thorax. Pronotum. Humeral angles markedly produced laterally into a large sharp spine, with medium-sized and broad marginal spines and tubercles; triangular process broad, nodulose, conspicuously elongate, extending far from the middle third of scutellum (Fig. 7). Middle third of metasternum remarkably produced into two large lobes, freely directed downward (Fig. 1). Genital capsule simple, semiglobose; posteroventral edge with median broad projection, protruding as a large quadrate plate, with angles almost straight (Fig. 4).

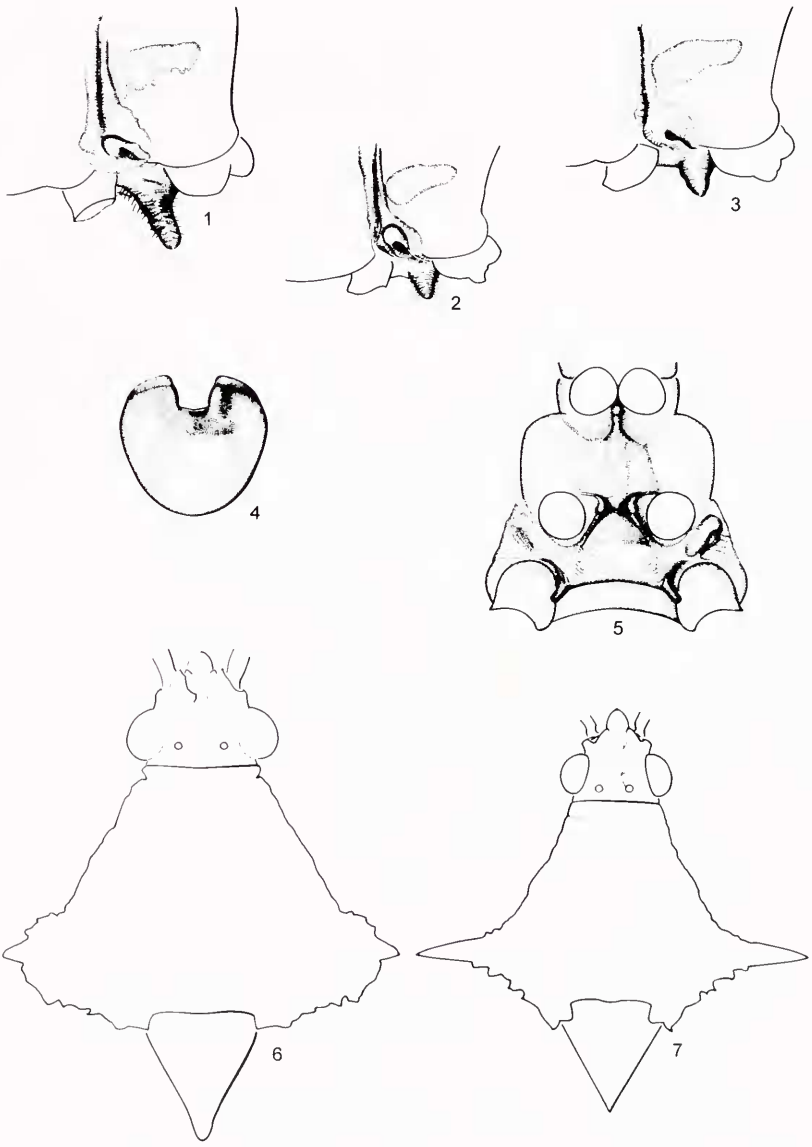
Measurements. Head length 1.84, width across eyes 2.24, interocular space 1.16, interocellar space 0.60, preocular distance 1.14; length of antennal segments: I, 4.30, II, 3.20, III, 2.60, IV, 4.95. Pronotum: Total length 5.00, width across frontal angles 2.35, width across humeral angles 8.20. Scutellar length 2.20, width 1.80. Total body length 21.65.

Female. Unknown.

Type material. Holotype: ♂, Brazil: Tonantins, Amazon River, VIII-1923, S. Klages (CMN).

Discussion. This species resembles *H. conica* Brailovsky & Barrera, in having two creamy yellow enamel-like spots on the pronotal disc and one on the propleura. *Himellastella aploa* Brailovsky & Barrera, the other previously known species, lacks creamy yellow spots.

Himellastella formosa new species, can be distinguished by its longe size, longer than 21.00 mm, the triangular process of pronotum extends far from the middle third of scutellum, and the lobes of the middle third of metasternum are remarkably produced (Fig. 1). In *H. conica*, the body size is shorter



Figures. 1-4. *Himellastella* spp. 1-3 Metathorax in lateral view. 1. *H. formosa* sp. n. 2. *H. aploa* Brailovsky and Barrera. 3. *H. conica* Brailovsky and Barrera. Fig. 4. Male genital capsule of *H. formosa* sp. n. Fig. 5. Mesothorax and metathorax in ventral view of *Egerniella delectabilis* sp. n. Figs. 6-7. Head, pronotum and scutellum in dorsal view. 6. *Paralycambes misionensis* Kormilev. 7. *Himellastella formosa* sp. n.

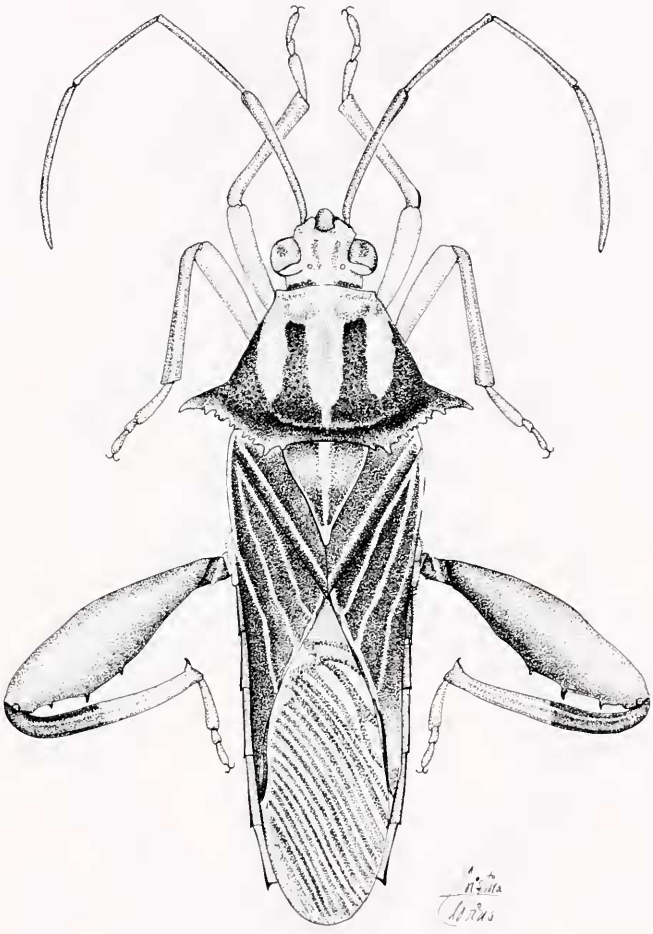


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Figure 8. Dorsal view of *Egerniella delectabilis* sp. n.

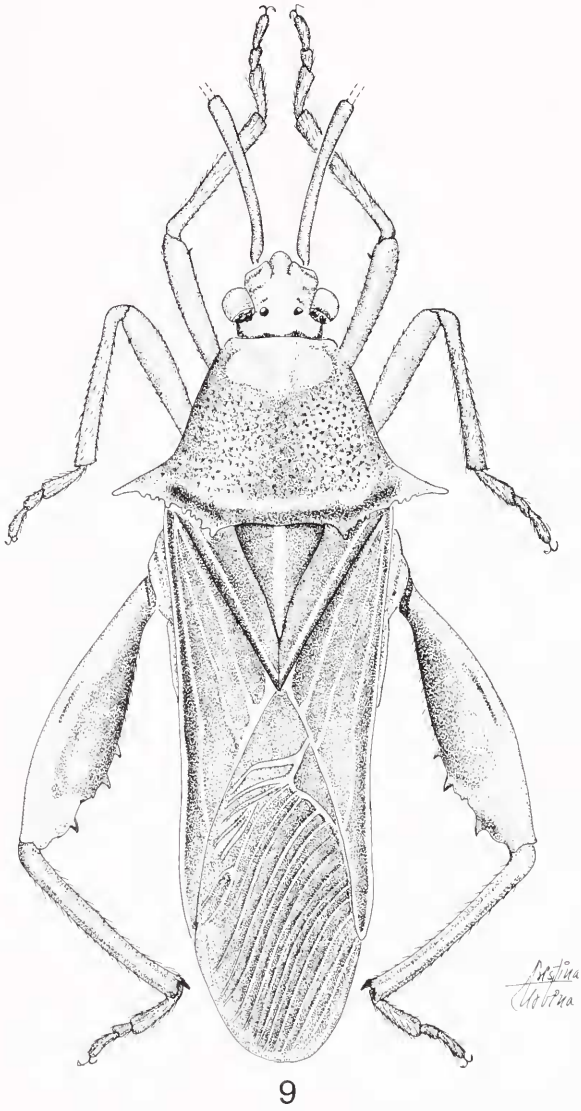

Figure 9. Dorsal view of *Egerniella immaculata* sp. n.

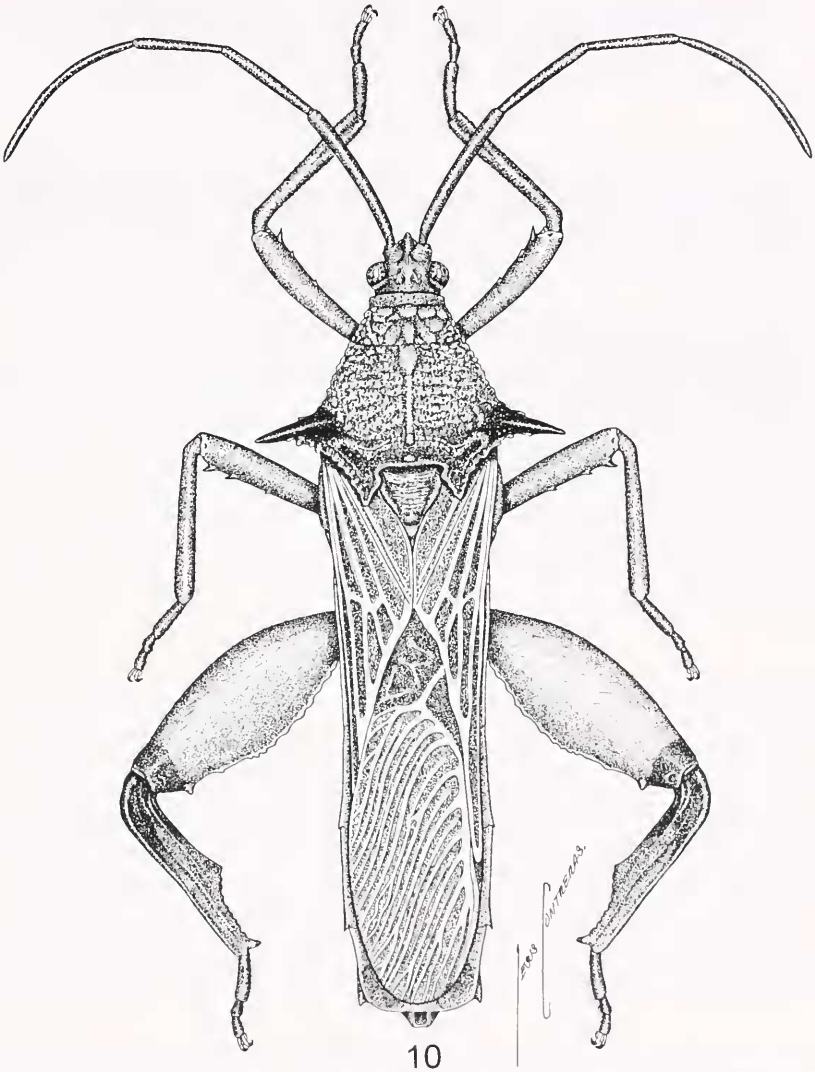

Figure 10. Dorsal view of *Himellastella formosa* sp. n.

than 19.00 mm, the triangular process never reaches the middle third of scutellum, and the lobes of the metasternum are conical, stout, and smaller (Fig. 3).

Etymology. From the Latin "*formosus*", meaning beautifully formed.

ACKNOWLEDGMENTS

Sincere thanks and appreciation to the following colleagues and institutions for the loan of specimens and other assistance relevant to this study: John L. Rawlins and Robert L. Davidson (CMN), Joe E. Eger (JEE), and Joseph C. Schaffner (TAMU). Thanks to Ernesto Barrera (UNAM), Cristina Urbina, and Jesus Contreras for the illustrations.

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